

Appl. No. 10/519,584
In response to the Office Action dated July 25, 2007
Paper dated November 26, 2007
Attorney Docket No. 1217-045998

REMARKS

Claims 1-6 are pending with claim 1 being the sole independent claim. Claim 1 has been amended to include the feature that the weight ratio between the exhaust gas purifying catalyst and silicon oxide in the catalyst layer is in the range of 10:90 to 40:60. Claim 2 has been amended to recite the feature that this weight ratio is 20:80 to 40:60. Support for these amendments is provided in the specification at page 11, lines 3-8. No new matter has been added.

The Examiner's reconsideration is respectfully requested in light of the amendments made herein taken with the following remarks.

ARGUMENTS

Claims 1-5 are rejected under 35 U.S.C §102(b) as being anticipated by U.S. Patent No. 6,087,298 to Sung et al. (hereinafter referred to as "Sung"). The Examiner asserts that Sung teaches each and every limitation of the claims. In particular, the Examiner asserts that Sung shows a metal carrier and a catalyst layer directly formed on a surface of the metal carrier wherein the catalyst layer comprises an exhaust gas purifying catalyst and silicon oxide. This rejection is based on the teachings at column 20, lines 21-36 and column 24, lines 65-67 wherein the support material comprises a high surface area refractory oxide support such as silica and metal oxides such as alumina, including mixed oxide forms such as silica-alumina wherein the alumina oxide is the exhaust gas purifying catalyst which is mixed with silicon oxide. With respect to the weight ratio between the exhaust gas purifying catalyst and silicon oxide in the catalyst layer, the Examiner refers to column 20, line 35 of Sung which states that a minor amount of other refractory oxides, e.g., about up to 20 weight percent may be present.

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According to this teaching, the weight ratio of the exhaust gas purifying catalyst and silicon oxide is 80:20, that is, it is weak in silicon oxide.

Claim 1 has been amended to recite this ratio (the weight ratio between the exhaust gas purifying catalyst and silicon oxide in the catalyst layer) to be within the range of 10:90 to 40:60. In other words, the presently claimed catalyst layer is silicon oxide rich. The support of Sung and the catalyst layer of the present invention are completely different from each other, i.e., in the amount of silicon oxide present, which in turn results in different products. As discussed in detail on page 11, lines 9-13 of the present application, by determining the amount of the silicon oxide in the claimed range, adhesion properties of the catalyst layer to the metal carrier can be remarkably enhanced without a substantial decrease of the catalytic activity of the catalyst layer. Accordingly, in the exhaust gas purifying catalyst-supported member of the invention, a specified amount of silicon oxide is contained in the catalyst layer. While the silicon oxide does not directly become an exhaust gas purifying catalyst, the introduction of this silicon oxide into the catalyst layer results in a binding action of the catalyst layer to the metal carrier. Therefore, adhesion between the catalyst layer and the metal carrier is significantly improved so as to enable the application of the catalyst layer directly on the metal carrier.

For the reasons set forth above, it is respectfully requested that the rejection of claims 1-5 under 35 U.S.C §102(b) be withdrawn as Sung fails to teach each and every feature of these claims.

Claim 6 is rejected under 35 U.S.C. §103(a) as being obvious over the teachings of Sung in view of U.S. Patent No. 4,759,918 to Homeier et al. (hereinafter referred to as "Homeier"). The Examiner relies on Homeier as teaching the use of metal mesh filters and

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asserts that it would have been obvious to use a metal mesh support member for the catalyst in Sung in view of Homeier. For the reasons set forth above, Sung fails to teach or suggest the presently claimed invention, thus even if the references were combined in the manner suggested in the Office Action, the presently claimed invention cannot be obtained.

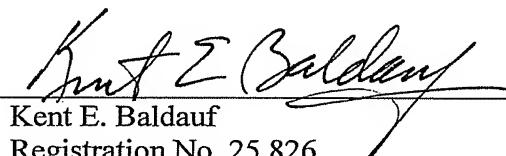
For the reasons set forth above, it is respectfully requested that the rejection of claim 6 under 35 U.S.C §103(a) be withdrawn as the combination of Sung with Homeier fails to render this claim obvious.

In view of the arguments set forth above and the amendments to the claims, it is respectfully requested that all claims in the application, namely claims 1-6, be allowed and the application be passed to issue.

Respectfully submitted,

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